

REVIEWS

1. SEA TURTLES OF INDIA: A COMPREHENSIVE FIELD GUIDE TO RESEARCH, MONITORING AND CONSERVATION, Compiled by: S. Shenoy, T. Berlie and K. Shanker. Published by: Dakshin Foundation, Bengaluru, and Madras Crocodile Bank Trust, Mamallapuram, 2011. 148 pp. Size: 15.5 cm x 21.5 cm, Paperback. Price not mentioned.

Sea turtles have always intrigued man. A picture of grace and beauty while in the sea, the females transform into helpless and ponderous giants when they come ashore on beaches to lay their eggs. The males are destined to forsake land forever after scampering into the sea as nestlings. The nearest they get a glimpse of land again is while off the nesting beaches for courtship and mating. Mainly threatened by man and other terrestrial predators during nesting, and some hunting at sea (by some communities; overall rare in India), turtles now face a serious threat through accidental catches in fishing gear, especially during *arribadas* (mass nesting of turtles), as in the case of the well-known *arribadas* in Gahirmata, Devi river mouth and Rushikulya in Orissa. Five of the seven species of marine turtles of the world are found in Indian waters: Loggerhead *Caretta caretta*, Leatherback *Dermochelys coriacea*, Olive Ridley *Lepidochelys olivacea*, Green *Chelonia mydas*, and Hawksbill *Eretmochelys imbricata*. The other species of sea turtles of the world are Kemp's Ridley *Lepidochelys kempii*, Australian Flatback *Natator depressus*, and East Pacific Green Turtle *Chelonia agassizii* (regarded as a race of *Chelonia mydas* by some taxonomists).

I had some experience of working on sea turtles, while based in Sriharikota Island during an Indian Space Research Institute (ISRO) funded project documenting the Island's faunal diversity. Around 200–300 Olive Ridley nested along the stretch of beach of the Island from January to March each year. Problems faced by the nesting turtles were predation by jackals and wild pigs, some cases of poaching by tribal Yanadis, deaths from drowning in the nets of trawlers, the growth of casuarina plantations at the borders of the beach encroaching on nesting sites, and illumination along roads and buildings on the shore that can disorient hatchlings to head for land instead of the sea. These are largely the problems of sea turtles that inhabit Indian waters – and must be facing in the rest of the world.

The threats to sea turtles have fortunately resulted in an explosion of studies, attention, and conservation efforts for them, this manual being a good example. The publication is a combined revised edition of two earlier publications brought out by the Madras Crocodile Bank Trust in 2003 under the GOI-UNDP Sea Turtle Project, with additional inputs from other publications. One gets, in a nutshell, all the required information necessary to undertake research,

monitoring and conservation of sea turtles. Regarding production aspects there is hardly anything to pick on. It is of small and handy size (easy to carry in the field or perused lying down!), does not involve wastage of paper (page space fully exploited) or squander precious conservation money (e.g., most photos are in black and white), and the text and illustrations are crisp and neat. The only thing I found jarring were the two-page introductory write-ups to chapters with startling large font size and liberal line spacing. These, I feel, can be skipped, and instead, be suitably incorporated into their respective chapters – maybe in the next edition/reprint.

The manual has three main chapters or sections: Introduction, Research and Monitoring, and Conservation and Management. One gets to know all about Indian sea turtles in the first chapter, their identification based on morphological characteristics and from the tracks left on beaches by nesting females; their biology, life history, habits and habitat, and distribution. The second chapter (Research and Monitoring) describes methodologies to study sea turtles: beach surveys and data collection at nests, biometric studies, tagging for individual identification, population estimation, studying movements and migration, satellite tracking, use of equipment, genetic studies, and habitat assessment. Information that needs to find a place in the next edition (in page 72 of this edition), would be on the reported average number of clutches laid by females of different turtle species during a nesting season, so that one need not search other publications for this information to estimate population size of nesting turtles at a site. Some of the threats facing sea turtles and ways to mitigate them discussed under Conservation and Management, make interesting reading and will be of much use for personnel involved in sea turtle conservation. There is also a section containing sample data sheets for recording information on turtles at beaches, namely nesting females, carcasses, nests, profile of nesting sites, and concerning hatcheries. This is followed by a bibliography, glossary and a list of organizations in India that are engaged in conservation of sea turtles in India.

Overall, this is a neat publication and essential reading for researchers and conservationists working on sea turtles. It is mainly intended for free distribution to such people or institutions, and can be made available to others free on request.

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